

Appln. No. 10/065,595  
Docket No. 125974/GEM-0053

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### REMARKS / ARGUMENTS

Applicant's Attorney David Arnold thanks the Examiner for agreeing to discuss over the telephone on September 25, 2006, open matters relating to the above identified application. During that conversation, the Examiner commented that in addition to the actions presented in the Final Action dated June 16, 2006, the Examiner has concerns relating to double patenting in view of co-pending Application No. 10/063,064 (Docket No. 121321/GEM-0017) even though no such concern had been raised on the record until now.

Upon a review of the papers filed with the USPTO, Applicant's Attorneys find a Letter dated June 13, 2003, which identifies to the Examiner the existence of co-pending Application No. 10/063,064 (Docket No. 121321/GEM-0017), thereby fulfilling any obligation on Applicant's part to notify the Examiner of such co-pending applications.

Also during the above noted telephone conversation, Attorney David Arnold, in view of only Claims 38, 39 and 41 being indicated in the Advisory Action Paper dated August 28, 2006, as remaining rejected, questioned if the above identified application would be in condition for allowance if Applicant canceled Claims 38, 39 and 41, provided a terminal disclaimer to address the above noted concerns relating to co-pending Application No. 10/063,064 (Docket No. 121321/GEM-0017), and provided notice of supporting written description for the claim amendments presented in the After Final Amendment. In response, the Examiner indicated that if such action were to be taken, the remaining claims would likely be considered allowable.

Accordingly, and in an effort to advance this case to issue, Applicant herewith provides:

- i) a terminal disclaimer with respect to co-pending Application No. 10/063,064 (Docket No. 121321/GEM-0017);
- ii) cancellation of Claims 38, 39 and 41; and
- iii) notice of supporting written description for the claim amendments presented in the After Final Amendment, and repeated here.

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### Status of Claims

Claims 1-13, 16-18, 20-28, 30 and 34-49 are pending in the application, and stand rejected. Applicant has amended Claims 1, 11, 16, 17, 24, 27, 38, 48 and 49, and has canceled Claims 37-39 and 41, leaving Claims 1-13, 16-18, 20-28, 30, 34-36, 40 and 42-49 for consideration upon entry of the present Amendment.

Applicant respectfully submits that the rejections under 35 U.S.C. §112, first paragraph, and 35 U.S.C. §103(a), have been traversed, that no new matter has been entered, and that the application is in condition for allowance.

These amendments and accompanying remarks were not presented earlier because Applicant did not fully appreciate the nature of the Examiner's position until the Applicant was advised in more detail of the position by the final rejection. The claim amendments presented herein, which Applicant respectfully requests entry thereof, should require only a cursory review by the Examiner as they include only clarifying language to address questions relating to written description requirements and informalities.

### Rejections Under 35 U.S.C. §112, First Paragraph

Claims 48 and 49 stand rejected under 35 U.S.C. §112, first paragraph, for failing to comply with the enablement requirement. The Examiner alleges that the specification fails to set forth how the model can be "any combination" of the examples set forth.

While Applicant respectfully submits that Claims 48 and 49 do not recite "*any* combination", but instead recite "*a* combination", and further respectfully submits that it is common knowledge in the art of 3D computer modeling to combine image formats, such as wire mesh superimposed on top of a solid model for example, Applicant has nonetheless, in an effort to advance this case to issue, and without prejudice, amended Claims 48 and 49 as set forth above to overcome this rejection.

Claims 1-13, 16-18, 20-28, 30, 34-37, 40 and 42-49 stand rejected under 35 U.S.C. §112, first paragraph, for failing to comply with the written description

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requirement. The Examiner alleges that the specification, as originally filed, fails to disclose the use of "at least three geometric markers".

Applicant respectfully disagrees.

At Paragraph [0030], Applicant discloses: "...the operator inserts *a geometric marker*, such as, for example, a sphere, into the volume *at an anatomical landmark for subsequent visualization* or analysis. *Multiple geometric markers and geometric landmarks may be inserted and visualized at one time.*"

At Paragraph [0035], Applicant discloses: "... A rigid registration technique typically requires *the identification of at least three anatomical landmarks*, whereas a non-rigid registration technique may require *the identification of more than three anatomical landmarks...* *Additional landmarks can also be used* such that a transformation of best fit (in a mean squared error sense) is calculated."

At paragraph [0027], Applicant discloses: "*The segmentation of data* from a dataset refers to the extraction of a specific portion of the dataset that *relates to an anatomical landmark of interest*, such as, for example, the right atrium, the coronary sinus, or an external anatomical marker..."

Here, Applicant submits that the specification as originally filed clearly discloses that geometric markers are used to visualize anatomical landmarks, that multiple geometric markers may be used, and that multiple geometric markers may be used to identify "at least three" and "more than three" anatomical landmarks. As such, Applicant submits that the application as originally filed clearly discloses the use of less than three, at least three, and more than three geometric markers, and that one skilled in the art would appreciate from the application as originally filed that the use of at least three geometric markers is disclosed at least for the purpose of rigid registration.

In view of the foregoing, Applicant respectfully submits that the specification provides general guidelines as to the scope of the invention such that one of ordinary skill in the art would know what was meant, and that the subject matter of the invention has been described and is supported in such a way as to reasonably convey to one skilled in

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the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention, and therefore respectfully requests reconsideration and withdrawal of all rejections under 35 U.S.C. §112, first paragraph.

Additionally, and in view of the Examiner's indication in the Advisory Action Paper dated August 28, 2006, that Claims 1-13, 16-18, 20-28, 30, 34-37, 40 and 42-49 are objected to and not rejected, Applicant believes that the rejections under 35 U.S.C. §112, first paragraph, have been traversed.

#### **Claims Objections**

Claims 1-13, 16-18, 20-28, 30, 34-37, 40 and 42-49, are objected to because of various informalities.

Applicant has amended Claims 1, 11, 16, 17, 24, 27, 48 and 49 as set forth above to correct for the informalities, and has canceled Claim 37. No new matter has been added as antecedent support may be found in the application as originally filed.

In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of these objections, which Applicant considers to be traversed.

#### **Rejections Under 35 U.S.C. §103(a)**

Claims 38 and 41 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Liu et al. (U.S. Patent Publication No. 2003/0166999 A1, hereinafter Liu) in view of Langberg et al. (U.S. Patent No. 6,706,065, hereinafter Langberg) or Foltz et al. (U.S. Patent No. 6,094,591, hereinafter Foltz).

Claim 39 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Lui in view of Langberg or Foltz as applied to Claim 38 above, and further in view of Subramanyan et al. (U.S. Patent No. 6,782,284, hereinafter Subramanyan), Chen et al. (WO 96/10949).

In an effort to advance this case to issue, Applicant has canceled Claims 38, 39 and 41, without prejudice, thereby obviating this rejection. Applicant reserves the right to

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file a continuation application on the canceled claims so that they may be further examined at a later date.

Applicant has amended the claims for presentation in a better form that more clearly reflects Applicant's invention. The claim amendments should only require a cursory review by the Examiner as they merely include clarifying language to address questions relating to written description requirements and informalities.

In light of the foregoing remarks and amendments, Applicant respectfully submits that the proposed amendments and arguments comply with 37 C.F.R. §1.116 and should therefore be entered, and with their entry that the Examiner's rejections under 35 U.S.C. §112, first paragraph, and 35 U.S.C. §103(a), have been traversed, and that the application is now in condition for allowance. Such action is therefore respectfully requested.

In the event that the Examiner introduces any new ground of rejection that necessarily cannot be necessitated by Applicant's amendment, Applicant respectfully requests removal of the finality of the action so that Applicant may be afforded an appropriate opportunity to respond. MPEP 706.07(a).

If a communication with Applicant's Attorneys would assist in advancing this case to allowance, the Examiner is cordially invited to contact the undersigned so that any such issues may be promptly resolved.

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The Commissioner is hereby authorized to charge the Terminal Disclaimer fee under 37 CFR 1.20(d) and any additional fees that may be required for this amendment, or credit any overpayment, to Deposit Account No. 07-0845. In the event that an extension of time is required, or may be required in addition to that requested in a petition for extension of time, the Commissioner is requested to grant a petition for that extension of time that is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above-identified Deposit Account.

Respectfully submitted,  
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